NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

F A C T S H E E T

(pursuant to NAC 445A.236)

Permittee Name: Lyon County Public Works Department
Utilities Division
P. O. Box 1699
Dayton, Lyon County, Nevada 89403

Permit Number: NEV10017

Permitted Unit: South Dayton Valley Wastewater Treatment Plant

Location: The South Dayton Valley Wastewater Treatment Plant is located at 200 Lakes Boulevard, in Dayton, Nevada. Section 19, Township 16N., Range 22E. MDB&M. Latitude: 39°14'20"N, Longitude: 119°32'59"W.

Description of Facility and Discharge:

The applicant is requesting a modification and renewal of the existing permit to increase the capacity of the facility by upgrading the existing facility, a passive pond wastewater treatment system, with the addition of a new headworks, a mechanical plant manufactured by Austgen Biojet (ABJ), and a chlorine contact basin for disinfection. The new plant will provide Tertiary treatment of domestic residential and commercial sewage generated in the Dayton service area. The Tertiary treated, denitrified and disinfected effluent will be used for spray irrigation (reuse) on the nearby Dayton Valley Golf Course under permit No. NEV2001501.

The new plant utilizes an activated sludge, extended aeration treatment process in two parallel adjoined basins. The ABJ plant is designed to treat a maximum 0.200 MGD of domestic sewage and is adjacent to the present facility's pond system. The existing pond system provides secondary treatment and consists of a parallel system of two aerated primary ponds, each with a 363,000 gallon capacity, two secondary treatment ponds with a 4.94-million gallon and a 4.06-million gallon capacity respectively, and four RIBs, each with a 600,000-gallon capacity for disposal. The pond system has served as Dayton's sole treatment plant, and now, will be used to treat the sewage generated from the Dayton industrial area, lying south of the facility. The pond system and the RIBs will also serve as an emergency outfall for the ABJ mechanical plant. The addition of the new plant increases the capacity of the treatment plant to 0.460 MGD. This pond system has provided wastewater treatment to the service area since about 1987.

Winter storage of the treated effluent discharged from the mechanical plant is accommodated by the Dayton Valley Golf Course lakes, and if needed, the effluent can be directed to the RIBs for disposal. The RIBs each have a 0.60 MGD capacity.

Mechanical Plant
Outfall 001=golf course reuse irrigation and winter storage
Outfall 002=RIBs for disposal
Pond System
Outfall 003=Ribs for disposal

Flow

The permitted Daily Maximum flow of 0.200 MGD has been set for the mechanical plant, and a Daily Maximum flow of 0.246 MGD for the pond system, a total of 0.446 MGD flow for both systems.

Receiving Water Characteristics:

Depth to groundwater near the plant site is approximately 75 to 85 feet below ground surface and is potable.

Groundwater samples are collected and analyzed quarterly from two downgradient monitoring wells. The Dayton Utility's water supply wells are located about one mile from the treatment plant site.

Procedures for Public Comment:

The Notice of the Division's intent to modify and reissue a permit authorizing the facility to discharge to the groundwater of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Dayton Courier** and the **Nevada Appeal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing by May 27, 2001, a period of 30 days following the date of publication of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held

must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Effluent Limitations: System I OUTFALL 001, 002

PARAMETERS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS
	30-day Ave.	Daily Max	Measurement
FLOW:			
Influent:	M & R	0.200 MGD	Continuous
Outfall 001:	M & R	M & R	Continuous
Outfall 002:	M & R	M & R	Continuous
BOD_5:	M & R	M & R	Weekly
TSS:	M & R	M & R	Weekly
Effluent:			
BOD_5:	30 mg/L	45 mg/L	Weekly
TSS:	30 mg/L	45 mg/L	Weekly
Fecal Coliform:	2.2 CFU/100 ml	23 CFU/100 ml*	Monthly
Nitrate as N:	10 mg/L	M & R	Monthly
Ammonia as N:	M & R	M & R	Monthly
Total Nitrogen as N:	M & R	M & R	Monthly
pH:	Between 6.0 and 9.0 S.U.		Monthly

SYSTEM II OUTFALL 003

FLOW:			
Influent:	M & R	0.260 MGD	Continuous
Effluent:	M & R	M & R	Continuous
Influent:			
$CBOD_5$:	M & R	M & R	Monthly
TSS:	M & R	M & R	Monthly
pH:	M & R	M & R	Monthly
Effluent:			
$CBOD_5$:	30 mg/L	45 mg/L	Monthly
TSS:	M & R	90 mg/L	Monthly
Nitrate as N:	M & R	M & R	Monthly
Total Nitrogen as N:	M & R	M & R	Monthly
Ammonia as N:	M & R	M & R	Monthly
pH:	Between 6.0 and 9.0 S.U.		Monthly
Priority Pollutants plus Metals:	Monitor and Report		4th Quarter
Sb		0.006 mg/L	Quarterly
As		0.05 mg/L	Quarterly
Ba		1.0 mg/L	Quarterly
Be		0.004 mg/L	Quarterly
Cd		0.1 mg/L	Quarterly
Cr		0.05 mg/L	Quarterly
Cu		1.3 mg/L	Quarterly

Pb	0.05 mg/L	Quarterly
Hg	0.002 mg/L	Quarterly
Ni	0.10 Mg/L	Quarterly
Se	0.01 mg/L	Quarterly
Ag	0.05 mg/L	Quarterly
Zn	5.0 mg/L	Quarterly

MGD = million gallons per day; ml = milliliters; mg/l = milligrams per liter; CFU* = colony forming units; MPN* = most probable number;

Groundwater Monitoring PARAMETERS	**MONITORING WELLS**	**Frequency**
TOTAL DISSOLVED SOLIDS:	Monitor and Report	Quarterly
NITRATE as N:	See Part I.A.10. 10 mg/l	Quarterly
TOTAL NITROGEN as N:	Monitor and Report	Quarterly
CHLORIDE:	Monitor and Report	Quarterly
GROUNDWATER ELEVATION:	Monitor and Report	Quarterly
DEPTH TO GROUNDWATER:	Monitor and Report	Quarterly

Schedule of Compliance, Special conditions:

1. A Revised O & M Manual shall include a **Groundwater Monitoring Plan, and a Sludge Management Plan** and shall be submitted to the Division for review and approval within 90 days of permit issuance.

2. **A certification** that the ABJ mechanical plant has been constructed in accordance with the plans approved by NDEP shall be provided by a Nevada Registered Professional Engineer within 30 days of completion of construction of the facilities.

There are no special conditions.

Rationale For Permit Requirements

Effluent monitoring is required to assess the level of treatment being provided in each treatment train, and to determine when design capacity is being approached. Metals and Priority Pollutant monitoring of effluent generated from the industrial area is required to protect groundwater.

Groundwater monitoring is required to ensure that operations of the facility do not degrade groundwaters of the State.

Proposed Determination

The Division has made the tentative determination to reissue the proposed permit for a five (5) year period.

Prepared by: Icyl C. Mulligan
April 2001